



3B2

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## HALF-WAVE VACUUM RECTIFIER

## GENERAL DATA

## Electrical:

Heater, for Unipotential Cathode:

Voltage. . . . . 3.15 . . . . . ac volts

Current. . . . . 0.22 . . . . . amp

Direct Interelectrode Capacitance (Approx.):<sup>o</sup>Plate to cathode & internal  
shield & heater. . . . . 1.8  $\mu\mu\text{f}$ 

## Mechanical:

Mounting Position. . . . . Any

Maximum Overall Length . . . . . 5-7/32"

Seated Length. . . . . 4-1/2"  $\pm$  3/16"

Maximum Diameter . . . . . 1-23/32"

Bulb . . . . . T-12

Cap . . . . . Small (JETEC No. C1-1)

Base . . . . . Short Jumbo-Shell Octal 8-Pin

with External Barriers (JETEC No. B8-71)

Basing Designation for BOTTOM VIEW . . . . . 8GH

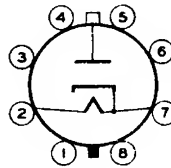
Pin 1 - Internal  
Connection-  
Do Not Use

Pin 2 - Heater

Pin 3 - Same as Pin 1

Pin 4 - No  
Connection $\blacklozenge$ 

Pin 5 - Same as Pin 1



Pin 6 - Same as Pin 1

Pin 7 - Heater,

Cathode,

Internal

Shield

Pin 8 - Same as Pin 1

Cap - Plate

## PULSED-RECTIFIER SERVICE

Maximum Ratings, Design-Center Values Except as Noted:

For operation in a 525-line, 30-frame system<sup>o</sup>

## INVERSE PLATE VOLTAGE:

Total dc and peak

(Absolute maximum) . . . . . 35000<sup>■</sup> max. volts

DC . . . . . 25000 max. volts

PEAK PLATE CURRENT . . . . . 80 max. ma

AVERAGE PLATE CURRENT. . . . . 1.1 max. ma

<sup>o</sup> Without external shield. $\blacklozenge$  See Operating Considerations.<sup>1</sup><sup>□</sup> As described in "Standards of Good Engineering Practice Concerning  
Television Broadcast Stations", Federal Communications Commission.<sup>■</sup> Under no circumstances should this absolute value be exceeded.

## OPERATING CONSIDERATIONS

Socket Connections. Low-potential circuits should not be  
connected to any of the socket terminals. Any or all of  
the following socket terminal connections are permissible

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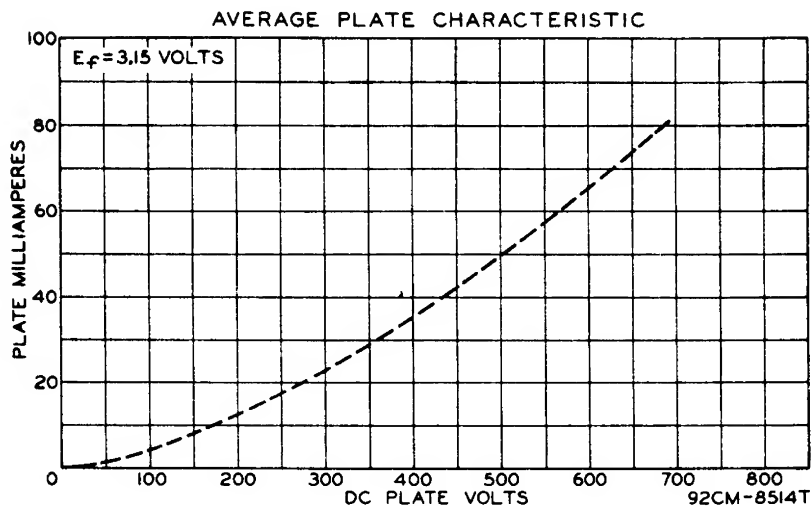
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and may aid in corona reduction.

1. Pins 1, 3, 5, and 7 may be connected together.
2. Pins 2, 6, and 8 may be connected together.
3. Pin 4 may be connected to either pin 2 or pin 7, or may be used as a tie point for a heater-voltage dropping resistor. Do not use pin 4 as a low-potential tie point.

**Measurement of Heater Voltage.** To measure the heater voltage when the heater is at a high dc potential with respect to ground, it is recommended that a simple method utilizing visual comparison of the cathode and heater temperatures be used. The color temperature of the cathode and heater, with the heater operating from a pulse-power source, may be checked visually by comparing in a darkened room this color temperature with that obtained when the heater of another 3B2 is operated from a dc or low-frequency ac supply of 3.15 volts.

**X-rays.** The voltages employed in some television receivers and other high-voltage equipment are sufficiently high that high-voltage rectifier tubes may produce X-rays which can constitute a health hazard unless such tubes are adequately shielded. Relatively simple shielding should prove adequate, but the need for this precaution should be considered in equipment design.



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